UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/693,798	10/19/2000	Leslie V. Niles	5465	8692

758	7590	10/21/2004

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EXAMINER
SON, LINH L D

ART UNIT	PAPER NUMBER
2135	

DATE MAILED: 10/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 October 2000*.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-33* is/are pending in the application.
   4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1-33* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a)☐ All   b)☐ Some * c)☐ None of:
   1.☐ Certified copies of the priority documents have been received.
   2.☐ Certified copies of the priority documents have been received in Application No. _____.
   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
      application from the International Bureau (PCT Rule 17.2(a)).
   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____.

DETAILED ACTION

1.   **The detail action is written in respond to the Amendment submitted on Jun**

1ˢᵗ of 2004.

2.   **Examiner accepts the submitted drawing on Jun 1ˢᵗ of 2004.**

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosesd or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 1-33 rejected under 35 U.S.C. 103(a) as being unpatentable over Chiu et

al, US Patent No. 5101402, hereinafter "Chiu", in view of Dietz et al, US Patent No.

6651099, hereinafter "Dietz".

5.   As per **claims 1 and 18**, Chiu discloses a method for providing a unique

identification of monitored network data instances flowing across various connections

between networked devices, the unique identification being derived from information

contained entirely within each instance of the network data, the method comprising:

using at least one monitoring device to monitor a network data instance flowing across

at least one data connection (Col 7 lines 15-39); deriving from the data instance certain

information which collectively provides a unique identification (Col 9 lines 1-54) of the

network data instance; However, Chiu does not discloses "assembling the derived

information into an input string for a hash function; and using the output string of the

hash function as a signature which represents a unique identifier of the network data

instance". Nevertheless, the method of deriving the unique identifier using the hash

function to create the signature is taught by Dietz in (Col 6 lines 18-19). Therefore, it

would have obvious for one having ordinary skill in the art to incorporate the hash

function to create the signature of the unique identification data captured by the Chiu's

invention. The result is a unique identifier signature of the session or data instance in

the network. This signature is unique and minimal in sizing, which can be easily stored

and processed (Col 10 lines 53-60).

6.   As per **claims 2, 7-9, and 24-26**, Chiu discloses the method according to Claims

1 and 18, wherein the deriving step includes: deriving from the data instance a source

and destination address for the data; deriving from the data instance a source and

destination port associated with the networked devices (Col 3 lines 24-40, Col 8 lines

54-61, and Col 9 lines 3-25) (The Transport layer header info has the ports info and The

Link layer header info has the address info); deriving from the data instance at least one

sequence number associated with data instance (Col 9 lines 33-45).

7.   As per **claims 3, 4, 15, 20-21, and 32**, Chiu discloses the method according to

Claims 1 and 18, which further includes: attaching the signature to at least one data

report associated with the network data instance; and transmitting data reports and

signatures from each monitoring device to a central collecting device (Col 12 lines 7-

14).

8.   As per **claims 5 and 22**, Chiu disclose the method according to Claims 3 and 20,

wherein the central collecting device uses the signatures to eliminate duplicate data

reports that might come in from different monitoring devices positioned at different

locations on the network (Col 12 lines 19-28).

9.   As per **claims 6 and 23**, Chiu discloses the method according to Claims 1 and

18, wherein network data instances are data packets as part of a TCP/IP (Transmission

Control Protocol/Internet Protocol) client-server network (Col 1 lines 13-24, and Col 2

lines 24-39).

10.   As per **claims 10 and 27**, Chiu discloses the method according to Claims 9 and

26, wherein the at least one sequence number includes both a client sequence number

and a server sequence number (Col 9 lines 40-45, and Col 1 lines 17-24) (The

sequence number cited is the number of packet sending back and forth by both ends).

11.   As per **claims 11 and 28,** Chiu discloses the method according to Claims 2 and

19, wherein the input string information does not include sequence numbers (Col 9 lines

3-9).

12.   As per **claims 12 and 29,** Chiu discloses the method according to Claims 11 and

28, wherein the network data instances are datagrams as part of a UDP/IP (User

Datagram Protocol/Internet Protocol) network (Col 9 line 21) (The ACK is the UDP

packet).

13.   As per **claims 13 and 30,** Chiu discloses the method according to Claims 1 and

18. However, Neither Chiu or Dietz discloses "truncating the signature to include fewer

bits than the hash function output string". Nevertheless, It would have been obvious at

the time of the invention for one having ordinary skill in the art to reduce the output

string to a fewer bits. This operation will obviously create a uniform unique signature for

storage and processing purpose.

14.   As per **claims 14 and 31,** Chiu discloses the method according to Claims 1 and

18, which further includes: adding flag bits to the signature which indicate the type of

application associated with the network data instance (Col 10 line 54-57).

15.   As per **claim 16,** Chiu discloses the method according to Claim 1, wherein the

monitoring device operates to directly monitor the network data (Col 7 lines 15-27).

16.   As per **claim 17**, Chiu discloses the method according to Claim 1, wherein the

monitoring device operates to indirectly monitor the network data (Col 7 lines 15-27).

17.   As per **claim 33**, Chiu disclose method for providing a unique session key of

monitored network data packets flowing across various connections between networked

devices, the unique session key being derived from information contained entirely within

each instance of the network data packet, the method comprising: using at least one

monitoring device to monitor a network data packet flowing across at least one data

connection (Col 12 lines 19-28); deriving from the data packet a source and destination

address for the data is inherent in a TCP/IP network; deriving from the data packet a

source and destination port associated with the networked devices is inherent in a

TCP/IP network (Col 3 lines 24-40, Col 8 lines 54-61, and Col 9 lines 3-25) (The

Transport layer header info has the ports info and The Link layer header info has the

address info); deriving from the data packet at least one sequence number associated

with data instance (Col 9 lines 33-45); attaching the unique session identifier to at least

one data report associated with the network data packet (Col 12 lines 7-28); Chiu does

use the hash function based on the current session key to access the session record

which includes all the information derived above (Col 10 lines 18-23). However, "Chiu

does not assembling the derived addresses, ports, and at least one sequence number

information into an input string for a hash function; and using the output string of the

hash function as the signature which represents a unique identifier of the network data

packet". Nevertheless, the method of deriving the unique identifier using the hash function to create the signature is taught by Dietz in (Col 6 lines 18-19). Therefore, it would have obvious for one having ordinary skill in the art to incorporate the hash function to create the signature of the unique identification data captured by the Chiu's invention. The result is a unique identifier signature of the session or data instance in the network. This signature is unique and minimal in sizing, which can be easily stored and processed (Col 10 lines 53-60).

Conclusion

18.   Any inquiry concerning this communication from the examiner should be directed to Linh Son whose telephone number is (703)-305-8914.

19.   If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor Kim Y. Vu can be reached at (703)-305-4393. The fax numbers for this group are (703)-872-9306 (official fax). Any inquiry of general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (703)-305-9600.

20.   Please notice. Due to the Office moving, the telephone numbers above will only be valid until October 15th of 2004. After that, the follow list of numbers will be valid:
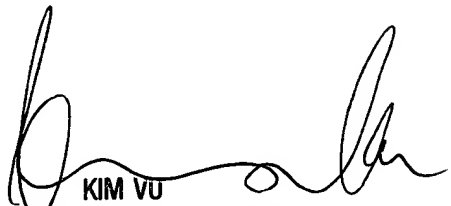
Examiner: (571) 272-3856.

Kim Y. Vu: (571) 272-3859

Receptionist : (571) 272-2100

21.   Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval IPAIR.I system. Status information for

published applications may be obtained from either Private PMR or Public PMR. Status

information for unpublished applications is available through Private PMR only. For

more information about the PAIR system, see http://pzr-direct.uspto.gov. Should you

have questions on access to the Private PAIR system, contact the Electronic Business

Center (EBC) at 866-217-9197 (toll-free).

Linh LD Son

Patent Examiner

KIM VU

SUPERVISORY PATENT EXAMINER

TECHNOLOGY CENTER 2100